

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-414-1
Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1988 model-year General Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks and medium-duty vehicles:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
U3G5.7T5TYA2	5.0/5.7 (305/350)	Air Injection Pump Exhaust Gas Recirculation Three-Way Catalyst Oxygen Sensor (Central Fuel Injection) (On-Board Diagnostics)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

<u>Loaded Vehicle Weight</u>	<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per mile</u>
3751-5750	0.50	9.0	1.0

The following are the certification emission values for this engine family:

<u>Loaded Vehicle Weight</u>	<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
3751-5750	0.31	3.5	0.9

BE IT FURTHER RESOLVED: That the listed models were certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year(s)..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

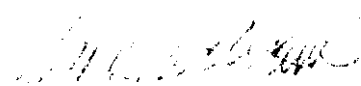
BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order supersedes Executive Order A-6-414 dated December 12, 1986.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 13th day of May, 1987.


K. D. Drachand, Chief
Mobile Source Division

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Evaporative Family: JF0-3C

Engine Displacement Liters (Cubic Inches) - Type: 5.0/5.7 (305/350) - V8

ABBREVIATIONS:

Ignition System

CA-Centrifugal Advance
 ECU-Electronic Control Unit
 EI-Electronic Ignition
 ESAC-Electronic Spark Advance Control
 VA-Vacuum Advance
 VR-Vacuum Retard

Fuel System

I, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor

GM Abbreviations

A/C-Air Conditioning
 FC-Forward Control
 HD-Heavy Duty
 CI-Cubic Inch (Displacement)
 TBI-Throttle Body Injection
 RWD-Rear Wheel Drive
 4x2-Two Wheel Drive
 4x4-Four Wheel Drive
 6x4-Four Wheel Drive

Exhaust Emission Cont System

AIP-Air Injection Pump
 AIV-Air Injection Valve
 EGR-Exhaust Gas Recirculation
 EM-Engine Modification
 DBC-Dual Bed Catalyst
 HOS-Heated Oxygen Sensor
 OC-Oxidation Catalyst
 OS-Oxygen Sensor
 SPL-Smoke Puff Limiter or Throttle Delay
 TOC-Trap Oxidizer, Continual
 TOP-Trap Oxidizer, Periodical
 TR-Thermal Reactor
 TWC-Three-Way Catalyst
 MUOC-Warmup Oxidation Catalyst
 WUTWC-Warmup Three-Way Catalyst
 EIC-Electronic Injection Control

Special Features

CCV-Combustion Chamber Valve
 CFI-Central Fuel Injection
 DID-Diesel Injection-Direct
 DIP-Diesel Injection-Prechamber
 EFI-Electronic Fuel Injection
 IC-Intercooler/Aftercooler
 MFI-Mechanical Fuel Injection
 OBD-On Board Diagnostics
 TC-Turbocharger

Engine: Front (all Vehicles)

Drive: See Chassis Type (Page 2), all 4x2 vehicles are RWD.

ISSUED: 10-24-86

REV. NO.: 005

3210T/22T

17-J3G5.7T5TYA2-3A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS X MEDIUM DUTY VEHICLES GAS X DIESEL

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.0 (305)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
25	CC10703+E62 CC10703+E63 CC10903+E63 CC10953+E63	A-4	4250 4500 4750	16066631	17087004	17087201	25101903
26	CC10703+E62 CC10703+E63 CC10903+E63 CC10903+E63		4250 4500 4750				
27	CK10703+E62 CK10703+E63 CK10903+E63			16066681	17087019		
28	CK10703+E62 CK10703+E63 CK10903+E63		5000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 10-24-86

REV. NO.: 005
007

0210T/22T

17-J3G5.7T5TYA2-3.5A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS X MEDIUM DUTY VEHICLES _____ GAS X DIESEL _____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.0 (305)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
25A	CC10703+E62 CC10703+E63 CC10903+E63 CC10953+E63	A-4	4250 4500 4750	16073201	17087004, 17087019	17087201	25101903
26A	CC10703+E62 CC10703+E63 CC10903+E63 CC10903+E63		4250 4500 4750				
27A	CK10703+E62 CK10703+E63 CK10903+E63			16073251			
28A	CK10703+E62 CK10703+E63 CK10903+E63		5000				
29	CG11005 CG11305 CG21005 CG21305		4500 4750 4500 4750	16073861			25101899
30	CG11005 CG11305 CG21005 CG21305		4500 4750 4500 4750				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 001

REV. NO.: 002 007
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0210T/22T

17-J3G5.7T5TYA2-4A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS X MEDIUM DUTY VEHICLES _____ GAS X DIESEL _____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.7 (350)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
55	CC10703+E62 CC10703+E63 CC10903+E63 CC10953+E63	A-4	4250 4500 4750	16069831	17087100, 17087101	17087196	25101901
56	CC10703+E62 CC10703+E63 CC10903+E63 CC10953+E63		4250 4500 5000				
57	CK10703+E62 CK10703+E63 CK10903+E63		4750	16069941			
58	CK10703+E62 CK10703+E63 CK10903+E63		5000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 10-24-86

REV. NO.: 004
005

0210T/22T

17-J3G5.7T5TYA2-4.1A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS X MEDIUM DUTY VEHICLES _____ GAS X DIESEL _____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.7 (350)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
55B	CC10703+E62 CC10703+E63 CC10903+E63 CC10953+E63	A-4	4250 . 4500 4750	16081111	17087100, 17087101	17087196	25101901
56B	CC10703+E62 CC10703+E63 CC10903+E63 CC10953+E63		4250 4500 5000				
57B	CK10703+E62 CK10703+E63 CK10903+E63		4750	16081121			
58B	CK10703+E62 CK10703+E63 CK10903+E63		5000				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 003

REV. NO.: 004
005

0210T/22T

17-J3G5.7T5TYA2-4.5A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS X MEDIUM DUTY VEHICLES _____ GAS X DIESEL _____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.7 (350)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
55	CG21305 CG21306	A-4	4750 5250	16069831	17087100, 17087101	17087196	25101901
56	CG21305 CG21306		4750 5250				
57	CC20903+E63 CC20953+E63 CK20903+E63 CK20953+E63 CCR10906 CV10516 CV10906 CG31306		4750 5000 5250 5500	16069941			
58	CC20903+E63 CC20953+E63 CK10953+E63 CK20903+E63 CK20953+E63 CR10906 CV10516 CV10906 CG31306		4250 5000 5250 5000 5250 5500 5250 6000 5500				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 002

REV. NO.: 004

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0210T/22T

17-J3G5.7T5TYA2-5A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS_____ MEDIUM DUTY VEHICLES X GAS X DIESEL _____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.0 (305)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
27	CC20903+E63	A-4	4500	16066681	17087004,	17087201	25101903
	CC20953+E63		5000		17087019		
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				
28	CC20903+E63		4750				
	CC20953+E63		5000				
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

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0210T/22T

17-J3G5.7T5TYA2-5.5A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS_____ MEDIUM DUTY VEHICLES X GAS X DIESEL_____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.0 (305)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
27A	CC20903+E63	A-4	4500	16073251	17087004,	17087201	25101903
	CC20953+E63		5000		17087019		
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				
28A	CC20903+E63		4750				
	CC20953+E63		5000				
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 001

REV. NO.: 004

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0210T/22T

17-J3G5.7T5TYA2-4.6A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS X MEDIUM DUTY VEHICLES GAS X DIESEL

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.7 (350)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
55B	CG21305 CG21306	A-4	4750 5250	16081111	17087100, 17087101	17087196	25101901
56B	CG21305 CG21306		4750 5250				
57B	CC20903+E63 CC20953+E63 CK20903+E63 CK20953+E63 CCR10906 CV10516 CV10906 CG31306		4750 5000 5250 5500	16081121			
58B	CC20903+E63 CC20953+E63 CK10953+E63 CK20903+E63 CK20953+E63 CR10906 CV10516 CV10906 CG31306		4250 5000 5250 5000 5250 5500 5250 6000 5500				

Comments: See page one for abbreviations and evaporative emission family identification.
Please refer to manufacturer's HP lists for correct dyno test HP settings
based on model and equipment. If two test weights are listed, the lower
weight will be used for testing.

ISSUED: 003

REV. NO.: 004

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0210T/22T

17-J3G5.7T5TYA2-5A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS _____ MEDIUM DUTY VEHICLES X GAS X DIESEL _____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.0 (305)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
27	CC20903+E63	A-4	4750	16066681	17087004,	17087201	25101903
	CC20953+E63		5000		17087019		
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				
28	CC20903+E63		4750				
	CC20953+E63		5000				
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				

Comments: See page one for abbreviations and evaporative emission family identification.
Please refer to manufacturer's HP lists for correct dyno test HP settings
based on model and equipment. If two test weights are listed, the lower
weight will be used for testing.

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0210T/22T

17-J3G5.7T5TYA2-5.5A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS_____ MEDIUM DUTY VEHICLES_X_ GAS_X_ DIESEL_____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.0 (305)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
27A	CC20903+E63	A-4	4750	16073251	17087004,	17087201	25101903
	CC20953+E63		5000		17087019		
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				
28A	CC20903+E63		4750				
	CC20953+E63		5000				
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 001

REV. NO.: 004

005

0210T/22T

17-J3G5.7T5TYA2-6A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS _____ MEDIUM DUTY VEHICLES X GAS X DIESEL _____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.7 (350)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
57	CC20903+E63	A-4	4750	16069941	17087100,	17087196	25101901
	CC20953+E63		5000		17087101		
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				
58	CC20903+E63		4750				
	CC20953+E63		5000				
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 10-24-86

REV. NO.: 004
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0210T/22T

17-J3G5.7T5TYA2-6.1A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS _____ MEDIUM DUTY VEHICLES X GAS X DIESEL _____

Manufacturer: General Motors Corporation

Executive Order No.: A-6-414-1

Engine Family: J3G5.7T5TYA2

Exhaust Emission Control System: AIP/EGR/TWC/OS
(OBD)(CFI)

Liter (CI): 5.7 (350)

Engine Type: V8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
57B	CC20903+E63	A-4	4750	16081121	17087100,	17087196	25101901
	CC20953+E63		5000		17087101		
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				
58B	CC20903+E63		4750				
	CC20953+E63		5000				
	CK10953+E63		5250				
	CK20903+E63		5000				
	CK20953+E63		5250				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

ISSUED: 003

REV. NO.: 004
005

0210T/22T